

ESTABLISHMENT OF NEW ZEALAND'S CENTRE for SPACE SCIENCE and TECHNOLOGY



THERE'S MORE TO SEE

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CSST

RRI (Regional Research Institute) funded by Ministry of Business, Innovation and Employment (MBIE), established in June 2017 and focused on driving economic growth by enabling access to new and existing space-based measurements and developing products and solutions tailored to New Zealand's regional industries.

CORE VALUES

In New Zealand's best interests

Non-competitive

Enabling

Non-partisan

Regionally impartial

Operationally and fiscally prudent

Financially responsible

Commercially viable

Research focussed

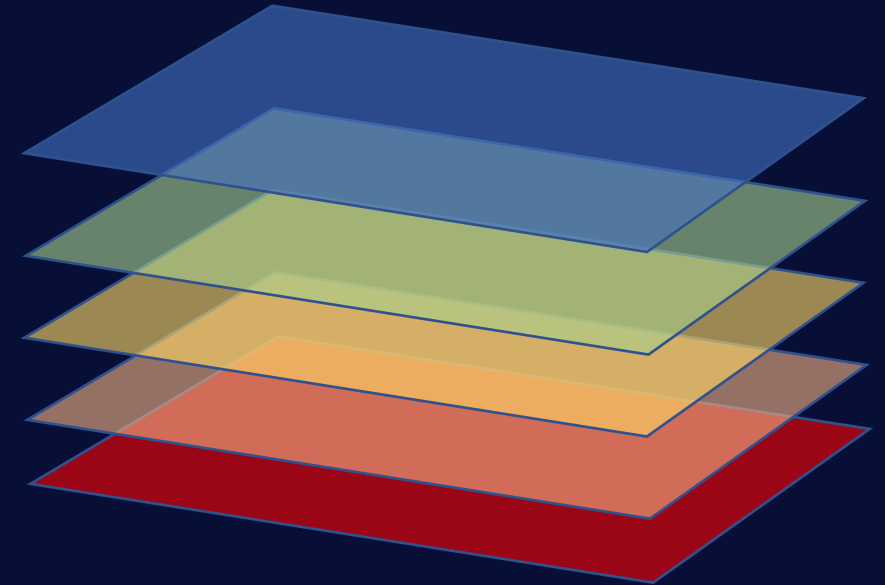
Technical excellence

Inclusiveness

Judiciously governed

It's all about 'Data Fusion'

- Hyperspectral
- Radar
- Multispectral
- LIDAR
- Point Source (IOT)
- Field observations



Value is in fusing historic and contemporary data sets to discover the past, predict the future, create new intelligence

Advanced Analytics Engine

Platform to create new intelligence supporting research and industry

- Improved research outcomes, new products and services
 - Comes from fusing imagery from satellites, aircraft & drones with in-situ data
 - Focused on:
 - Using multiple types of old data in new ways to improve research outcomes
 - Deliver a new class of scalable products, tailored for NZ industry, that deliver (near) real-time insights from streaming (near) real-time data
 - Requires
 - Real-time data processing and storage
 - Cloud-based
 - Simple – reduces / eliminates need for computer science expertise
 - Data ‘normalized’ relative to azimuth and elevation, environmental effects
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Applications

- Water resources: sediment load, effluent run-off, groundwater, storage, irrigation management
 - Vegetation: vitality & biomass, rehabilitation, carbon management
 - Marine: EEZ monitoring, algae bloom
 - Land use: urban planning, regulatory mapping, infrastructure delivery
 - Commodities: forest management, pasture vitality, crop yields
 - Disaster response: slip reporting, damage assessment, flood / fire risk
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